

Year 7 - Food Safety



Previous targets: _____

Attitude to learning:

	Always	Usually	Occasionally	Rarely
Class work	1	2	3	4
Homework	1	2	3	4
Participation	1	2	3	4

Subject criteria:

Research	Ideas	Evaluation	Planning	Making	K&U

Target	Areas for Improvement	Target	Areas for Improvement
	Complete all set tasks		Annotate sketches/ideas
	Complete homework		Add colour to your sketches/ideas
	Read instructions carefully		Add more detail to your research/evaluations
	Focus on the presentation of your work		Label star diagrams & include a key
	Submit booklet on the due date		Add more detail to timeplans

Optional Comment/Target: _____

CREDIT

CREDIT

CREDIT

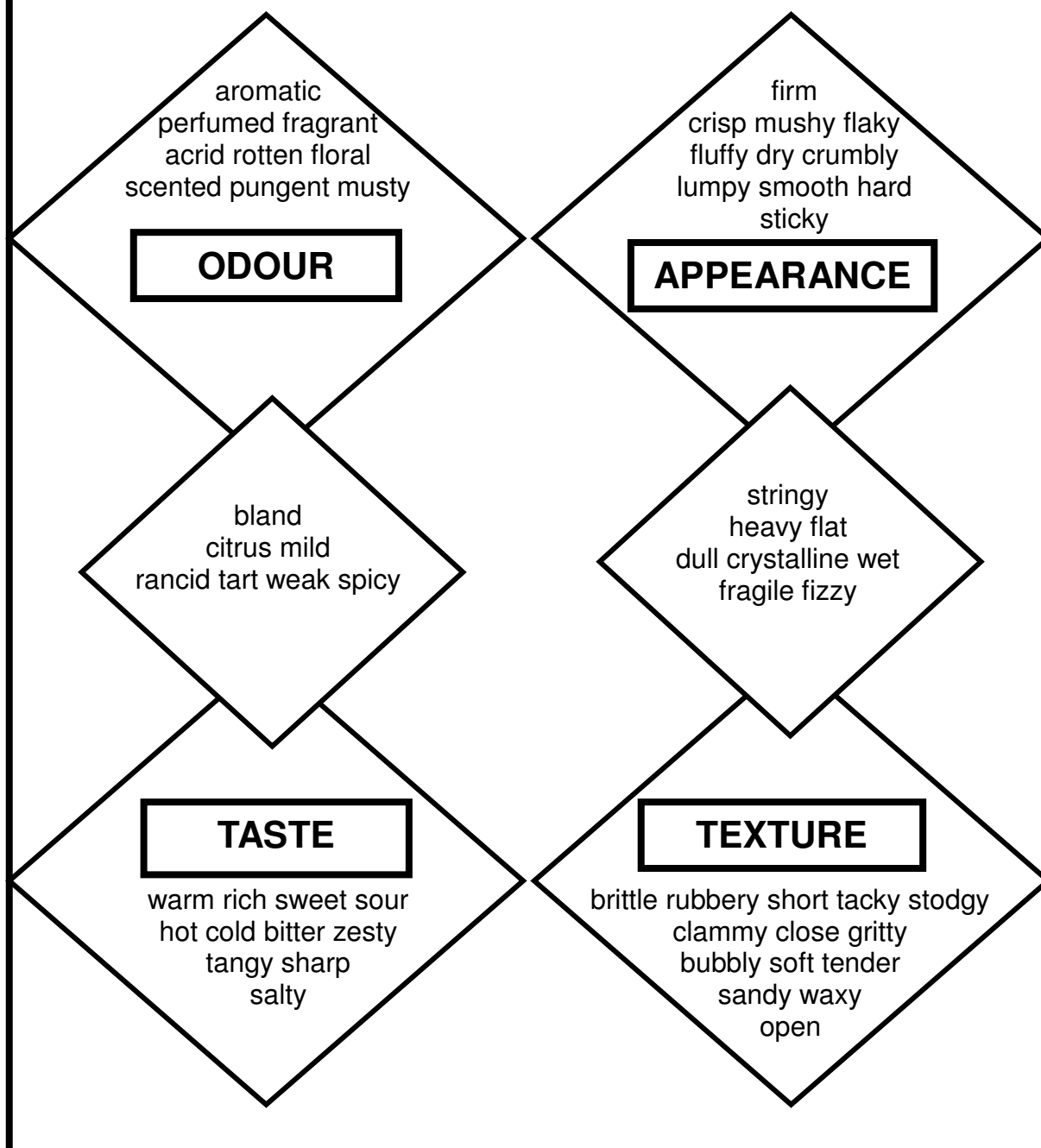
CREDIT

Name: _____

TG: _____

Date: _____

SENSORY VOCABULARY

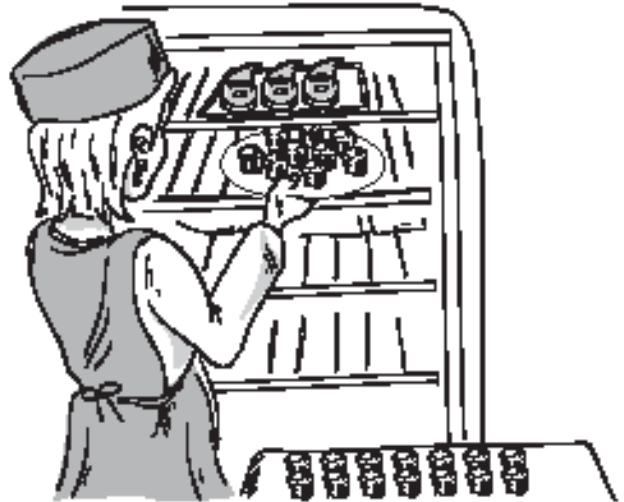


Try using these words to describe your work in Food Technology

Add your own words to the chart.

Can you find them?

Look at the pictures of people in different situations working with food. They are all following most of the hygiene rules, but there are two or three rules not being followed in each picture. In the space below each picture, explain the rules each person is breaking.



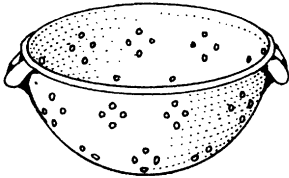
Food Technology Equipment

Label the food technology equipment with the correct name.

1.

6.

10.



2.

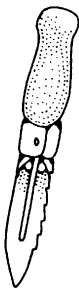
7.

11.

3.

4.

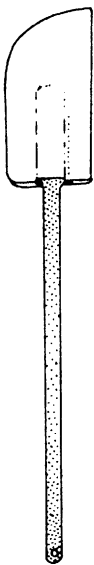
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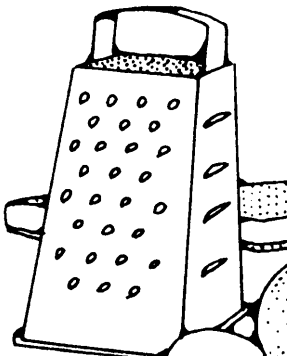
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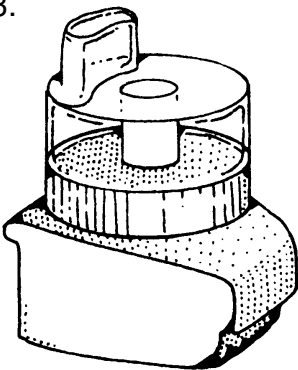
5.



9.



13.



Food Technology Equipment

Complete the chart about the Food Technology equipment pictured on the previous page.

	Equipment	Main functions	Examples of food products
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13.			

Food poisoning.

Key words:

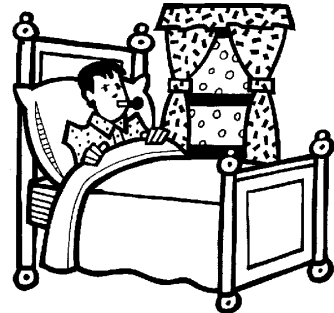
bacteria organisms microscope food poisoning diarrhoea sickness
symptoms contaminated temperature dormant divide

What is food poisoning?

Bacteria are found all around us and most bacteria are useful and important in our lives. Bacteria are tiny **organisms** that they can only be seen through a **microscope**. Some bacteria cause **food poisoning**. If you eat these kinds of bacteria they can make you ill. **Sickness** and **diarrhoea** are **symptoms** which show that you may have food poisoning. The bacteria are so small that they cannot be seen on food. However the bacteria could be in the food in large enough numbers to cause food poisoning.

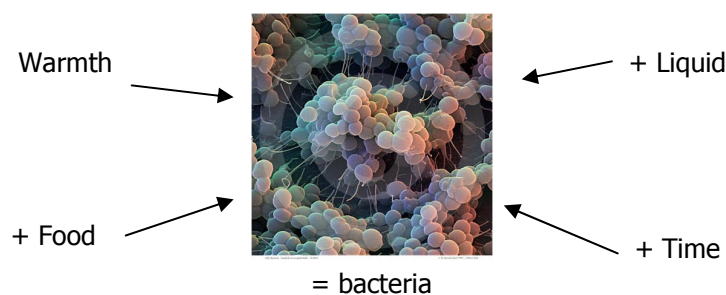
Why learn about food hygiene?

Everyone needs to know about food hygiene or they could cause food to become **contaminated** by bacteria. Good hygiene will prevent food poisoning.



The conditions bacteria need to grow:

Bacteria need four things to grow; **warmth, food, liquid** and **time**.



Warmth.

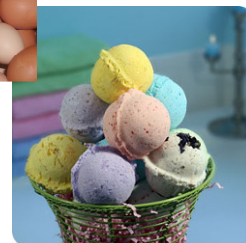
The **temperature** that bacteria like best is **37°C**, the same as the human body. Bacteria do not like hot temperatures. At temperatures above **63°C** bacteria start to **die**.

Bacteria do not like **cold** temperatures. In frozen food, bacteria are sleepy or **dormant** but they do not die. Once the food warms up the bacteria start to grow again.

Food poisoning continued.

Food.

Bacteria need food to grow on and like foods which contain protein and water like chicken, sausages, burgers, eggs and ice cream. Can you think of any others?



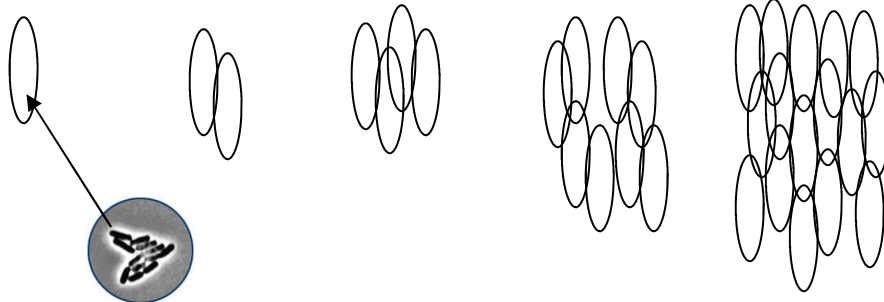
Liquid.

Bacteria need liquid to grow. Dried foods such as soup mix, pasta and dried milk powder do not contain enough liquid for bacteria to grow. Once you add a liquid to these foods bacteria could start to grow.

Time.

Bacteria grow by **dividing** (splitting into two separate bacteria). The number of bacteria can double every 20 minutes!

20 minutes → 40 minutes → 60 minutes → 80 minutes → 100 minutes



Think!

How long would it take for 1 million bacteria to grow from a single bacterium? What's the most efficient way to work this out?

Answer:

Questions.

Answer the questions below using full sentences. Write your answers on the next page of the booklet.

1. What are the symptoms of food poisoning?
2. What four conditions do bacteria need to grow?
3. At which temperature do bacteria grow best?
4. Make a list of foods that bacteria like to grow on.
5. Why do bacteria like these foods best?
6. Explain why bacteria do not grow on dried milk powder.
7. Why is food hygiene important?
8. Make a list of four rules that you should follow to help prevent food poisoning.

Food Poisoning Questions.

[illegible]

Star Diagram / Star Profile

A star diagram is used by the food industry to describe the looks and taste of food products. It is an easy way to compare products as you can quickly see differences on the star diagrams. You can compare several products on the same chart e.g. the crunchiness and sweetness of biscuits. From the star diagram you can write a **product profile** describing how your product looks and tastes.

The test can be used to:

- evaluate differences in similar products
- gauge consumer response
- analyse specific attributes, e.g. sweetness, crispness
- check that a food product meets its original specification
- compare similarities in a range of products
- show new opportunities for product development

How to Model Sensory Attributes

1. With a ruler draw the outline of your star diagram.
2. Choose eight words that describe the characteristics of the products appearance, texture and taste e.g. crunchy, spicy, smooth
3. Give your star diagram a key, using a scale from 0 to 5. (The higher the number the greater the intensity).
 - 0 = not at all.....,
 - 3 = OK,
 - 5 =very....
3. Taste the food and complete the star profile.
4. Write a product profile under your star diagram.

EXAMPLE

Star Diagram

Healthy Eating Pyramid

‘Anything But The Sandwich’ Design Task

Imagine you are the food technologist for a sandwich bar called ‘Anything But the Sandwich’. You have been asked to design an alternative to a sandwich using a pitta pocket or wrap. Your design must contain a protein food and three vegetables or fruits.

Bread (choose one)

1 pitta pocket or wrap

Protein foods (choose one)

25g cooked chicken

25g cheese

25g tuna

1 slice cooked bacon

1 slice ham

Fruits and vegetables (choose three)

1 tomato

2cm piece cucumber

¼ onion

1 small carrot

1 stick of celery

¼ red or green pepper

25g sweet corn

25g mushrooms

2 lettuce leaves

Optional extras

1 tablespoon mayonnaise

1 tablespoon tomato ketchup

1 tablespoon salsa

½ teaspoon pesto

Salt and pepper

Things to consider?

- Will you need to slice or grate any ingredients?
- Which any ingredients will need cooking?
- How long will you grill the pitta pocket or wrap?
- How will you fill the pitta or wrap?
- When will you clean up, wipe the work surfaces and put the clothes in the basket?

‘Anything But The Sandwich’ Design Ideas

Sketch and label imaginative ideas for filled pitas or wraps.

Remember to include:

- A pitta or wrap
- a protein food
- three vegetables and / or fruits
- Any additional ingredients

'Anything But The Sandwich' Final Design

Ingredient	Quantity

Equipment list:		

'Anything But The Sandwich' - Quality and Safety Checks

Safety Check		Process		Quality Check
	←		→	
	←		→	
	←		→	
	←		→	
	←		→	
	←		→	
	←		→	

Functions of Ingredients

(see book '**Skills in Food Technology**' - Jenny Ridgewell, pages 28 & 29)

[illegible]

Functions of Ingredients (continued).

[illegible]

Experiment to find the most suitable flour for a cake.

Ingredients:

Method:

Type of flour	Height of cake	Appearance	Texture	Taste
White bread making flour				
White plain flour				
Wholemeal plain flour				
White self raising flour				
White self raising flour + B.P				

Cake Experiment Conclusion**Key words**

wheat
flour
dense

self raising
air
baking

light
plain
carbon

bran


TASK: Copy the paragraph and fill in the missing words.

A cake should have a _____ and springy texture. _____ is added to the cake mixture by using an electric whisk. Self raising flour contains _____ powder, this is a raising agent and it produces _____ dioxide.

Strong _____ and plain flour do not contain a raising agent and so these cakes will only rise if some air has been whisked into the mixture. A cake made with strong or _____ flour will not rise as much as a cake made with self raising flour.

Whole _____ flour contains the _____ of the wheat grain. This can give the cake a 'nutty' flavour and can make the texture seem _____ and heavy.

Cake is usually made from _____ _____ flour.

Food product:	ROCK BUNS
Ingredients:	<p>200g self raising flour 75g margarine 1 egg 75g caster sugar ¼ teaspoon cinnamon (optional) CHOOSE ONE: * 75g dried fruit * 50g chocolate chips * 50g glace cherries * 50g desiccated coconut</p> 
Equipment:	small bowl, fork, tablespoon, sieve, large mixing bowl, baking tray
Preparation:	<ol style="list-style-type: none"> 1 Wash hands and put on apron 2 Collect ingredients 3 Collect equipment 4 Pre-heat the oven to 200 °C. 5 Brush a baking tray with oil.
Method:	<ol style="list-style-type: none"> 1 Sieve the flour into a large mixing bowl. 2 Rub the margarine into the flour using your finger- tips. 3 Stir in the sugar and either the dried fruit, coconut, cherries or chocolate chips. 4 In a small mixing bowl beat the egg with a fork. 5 Add the egg to the flour mixture. The mixture must be firm enough to stand in heaps. 6 NOTE: If the mixture does not stick together add 1 or 2 tablespoons of water. 7 Divide the mixture into 10 rough heaps on a baking tray. 8 Bake for about 15 minutes until firm and golden brown.

QUESTIONS

1. Explain the functions of each of the ingredient in the Rock Buns:
 - 200g self raising flour
 - 75g margarine
 - 1 egg
 - 75g caster sugar
 - ADDITIONAL INGREDIENTS
 - 75g dried fruit, 50g chocolate chips, 50g glace cherries, 50g desiccated coconut, ¼ teaspoon cinnamon
2. Explain how you could change the recipe to meet the following needs:
 - a. Add more fibre to the recipe.
 - b. Make the Rock Buns appeal to children.
3.
 - a. How are the Rock Buns shaped?
 - b. What differences would there be if the Rock Buns were made in large numbers by a food company?

Rock Bun Questions

[illegible]